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Geophysical Experimentation (cont.)

GOVERNMENT

72. Types of gas-hydrate analogy instruments and methods of measurement

Petrography

AVAILABLE: Library of Congress (TLD) . P64

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3/2/1970

ZAVADOVSKIY, Anatoliy Mikhaylovich. Prinimal uchastiye BABENKO, Kh.L.,
inzh. POVKh, I.L., prof., doktor tekhn.nauk, retsenzent;
RODIN, K.G., kand.tekhn.nauk, red.; GOFMAN, Ye.K., red.izd-va;
SHCHETININA, L.V., tekhn.red.

[Principles of designing the blading of steam and gas turbines]
Osnovy proektirovaniia prototchnoi chasti parovykh i gazovykh
turbin. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry,
(MIRA 13:12)
1960. 246 p.
(Steam turbines--Blades) (Gas turbines--Blades)

ZHUKOVSKIY, Mikhail Isaakovich; POVKH, I.L., prof., doktor tekhn.nauk,
ratsenzent; MARKOV, N.M., kand.tekhn.nauk, red.; VASIL'YEVA,
V.P., red.izd-va; KONTOROVICH, A.I., tekhn.red.

[Calculating the flow about cascades of profiles of turbomachines]
Raschet obtekanija reshetok profilei turbomashin. Moskva, Gos.
nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1960. 259 p.
(MIRA 13:4)

(Turbomachines--Aerodynamics)

S/563/61/000/217/004/012
D234/D308

26.2311

AUTHOR:

Povkh, I. L.

TITLE:

Theory of similarity in technical magneto-hydrodynamics

SOURCE: Leningrad. Politekhnicheskiy institut. Trudy.
no. 217. 1961. Tekhnicheskaya gidromekhanika,
83-94

TEXT: A general study of similarity laws and numbers. Various applications of magnetohydrodynamics are reviewed. The basic equations are reduced to a dimensionless form, and the following numbers are defined: (1) magnetic Euler number--

$$\frac{H^2}{QV^2} = E_m , \quad (9)$$

Card 1/2

Theory of similarity...

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(2) magnetic Reynolds number--

$$\sigma V l = R_m , \quad (10)$$

(3) electric Reynolds number--

$$\sigma l \frac{E}{H} = R_e , \quad (11)$$

(4) magnetic Prandtl number--

$$\frac{\mu \sigma}{\rho} = \sigma v = P_m . \quad (12)$$

(l is a unit length especially chosen). The properties of these numbers and the values which they have in different practical cases are discussed. A separate description of the properties of the conductivity of liquids and gases is included. There are 1 figure and 1 table.

Card 2/2

POVKH, I.L.; KIRILLOV, I.I., doktor tekhn. nauk, prof., retsenzent;
BUSHMARIN, O.N., kand. fiz.-mat. nauk, red. Prinimal
uchastiye KOLOVANDIN, B.A.

[Technical hydromechanics] Tekhnicheskaya gidromekhanika.
Moskva, Mashinostroenie, 1964. 506 p. (MIRA 17:12)

1. Kafedra gidroaerodinamiki fiziko-mekhanicheskogo fakul'-
teta Leningradskogo politekhnicheskogo instituta im. M.I.
Kalinina (for Bushmarin).

L 62689-65

ACCESSION NR: AP5019101

UR/0286/65/000/012/0121/0122

16
B

AUTHORS: Povkh, I. L.; Kapusta, A. B.; Chekin, B. V.

TITLE: A method for electromagnetic mixing of conductive liquids. Class 59,
No. 172193

SOURCE: Byulleten' izobreteniij i tovarnykh znakov, no. 12, 1965, 121-122

TOPIC TAGS: mixed flow, solenoid, magnetic field, electric field, conductive fluid, conductive fluid motion

ABSTRACT: This Author Certificate presents a method for electromagnetic mixing of conductive liquids. To increase the efficiency and to obtain technically more convenient distribution of velocities in a melt, the latter is mixed by utilizing the interaction of a uniform axial magnetic field and a nonuniform radial electric field. A solenoid, within which the vessel with the melt is placed, is used to produce the uniform axial magnetic field. To produce an electric field which is nonuniform along the height of the vessel, the latter is made in the form of a cone (see Fig. 1 on the Enclosure). Orig. art. has: 1 diagram.

ASSOCIATION: none

SUB CODE: ME, IE

SUBMITTED: 17Oct63

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Card 1/2

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ACCESSION NR: AP5019101

ENCLOSURE: 01

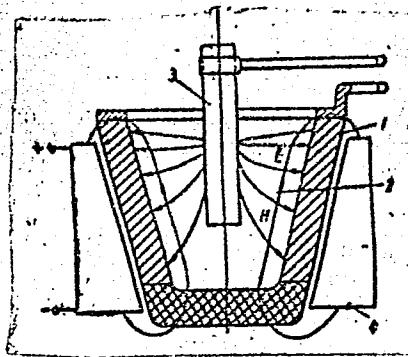


Fig. 1.

- 1- vessel with conductive walls and nonconductive bottom;
2- melt to be mixed; 3- electrode; 4- solenoid

dm
Card 2/2

BOLOMOV, N.I., inzh.; KOLOVANDIN, B.A., inzh.; LOVSH, I.V., student;
tekhn. rezhk, prof.; SEREBRIK, Ye.F., inzh.

Study of the structure of magnetohydrodynamic currents using
an induction-type anemometer. Izv. vys. ucheb. zav., energetika
(MVD) 1966, No. 9 no. 1:65-71 Ja '66.

1. Donetskiy gosudarstvennyy universitet i Donetskiy nauchno-
issledovatel'skiy institut chernoy metallurgii. P. O. Lutsenko,
korrespondent AN UkrSSR (for Povkh). Submitted September 1966.

L 25669-66 EWT(d)/EWT(1)/EWP(m)/EWP(c)/EWP(v)/EWP(k)/EWP(h)/EWP(1)/ETC(m).6/EWA(1)
ACC NR: AM6008545 MONOGRAPH UR/

Povkh, I. L.

Aerodynamic experiment in machinery building (Aerodinamicheskiy eksperiment v mashinostroyenii) 2nd ed., rev. and enl. Moscow, Izd-vo "Mashinostroyeniye," 1965. 479 p. illus., bibliog. 3000 copies printed.

TOPIC TAGS: flow analysis, flow characteristic, flow measurement, flow research, flow structure, ducted body

PURPOSE AND COVERAGE: The book is intended for engineers and technicians involved in research and development work and may also be useful to students in schools of higher education. Problems involving the modeling of flow ducts in various types of machinery are covered and a description is given of experimental apparatus and its components. Methods of measuring the pressure and velocity of air and gas flows are presented and methods of measuring constant and variable quantities in streams and on rotating machine parts are examined. Electrodynamic and gasdynamic analogies are worked out in detail.

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Card 3/3dd~

L 38992-66 EWT(1)/EWP(m)/T-2 IJP(c)

ACC NR: AP6016910

SOURCE CODE: UR/0143/66/000/001/0065/0071

AUTHOR: Bolonov, N. I. (Engineer); Kolvandin, B. A. (Engineer); Skrinnik, Ye. F. (Engineer); Povkh, I. L. (Corresponding member AN UkrSSR, Doctor of technical sciences, Professor)

41

B

ORG: Donetsk State University (Donetskiy gosudarstvennyy universitet); Donetsk Scientific-Research Institute of Ferrous Metallurgy (Donetskiy nauchno-issledovatel'skiy institut chernoy metallurgii)

TITLE: Investigation of the structure of magnetohydrodynamic flows by an induction anemometer

10

SOURCE: IVUZ. Energetika, no. 1, 1966, 65-71

TOPIC TAGS: anemometer, MHD flow, high temperature instrument

ABSTRACT: The article is devoted to a description of an instrument for investigating the structure of magnetohydrodynamic flows, an induction anemometer. The principles of measuring the local velocity by the induction methods are given. The object of the investigation was a flow of a conduction fluid with a free surface situated in a comparatively strong magnetic field. The basic components of the experimental device were the liquid system, magnetic field source, and measuring equipment. The experiments carried out showed that the investigation of the advantages of the induction method of measuring the characteristics of turbulence

Caru 1/2

UDC: 621.032-621.3.082.78

L 38992-66

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and the design features of the induction anemometer which the authors used proved to be quite fruitful and offered considerable possibilities for a thorough investigation of the structure of MHD flows at sufficiently high Hartmann numbers. With the appropriate amplifying and measuring equipment the instrument on the whole is simple and reliable in operation. The obvious advantages of this instrument are: the possibility of investigating the structure of the flows of both ordinary and Newtonian fluids in a wide range of frequencies and its noninertia. A change of velocity fluctuation almost instantly causes a change of the induced emf. Finally, the design of the sensor permits a rigorous separation of the signals induced by various components of the fluctuating velocity. Orig. art. has: 6 figures and 13 formulas.

SUB CODE: 20 / SUBM DATE: 13Sep65 / ORIG REF: 002 / OTH REF: 002

Card

2/2 // 5

POVKH, I.L. Prinimal uchastiye SMIRNOV, G.V., inzh.; ZYSINA-MOLOZHEN,
L.M., prof., doktor tekhn. nauk, retsenzent

[Aerodynamic experiment in the manufacture of machinery]
Aerodinamicheskii eksperiment v mashinostroenii. 2. dop. i
ispr. izd. Moskva, Mashinostroenie, 1965. 479 p.
(MIRA 18:12)

POVKH, Ivan Lukich; SEMENOV, V.P., otv. red.; PUSHMARIN, O.N.,
red.

[Aerodynamics; a manual for laboratory work] Aerodynamika;
uchetnoe posobie k laboratornym rabotam. Leningrad, Leningr.
politekhn. in-t, 1962. 126 p. (MIRA 16:10)
(Aerodynamics--laboratory manuals)

BONDARENKO, D.C., red.; BUGAYENKO, P.I. [Buhaienko, P.I.], red.; VASH, O.V., red.; KLIMPOTYUK, M.V., red.; PASTUSHENKO, M.S., red.; POVKH, V.O., vidp. red.; POLISHCHUK, V.P., red.; HUSIN, V.P., red.; FESHEKO, V.V., red.; LIUCHKIV, M., tekhn. red.

[Soviet Transcarpathia; a handbook] Radians'ke Zakarpattia; dovidnyk. Uzhhorod, Zakarpats'ke obl. vyd-vo, 1957. 239 p. (MIRA 11:7) (Transcarpathia)

POVKH, V.O., otv.red.; KRIVIN, F., red.; LUCHKIV, M., tekhnred.

[High award; awarding of the Order of Lenin to Transcarpathia]
Vysoka nahoroda; nahorozhdennia Zakarpats'koi oblasti ordenom
Lenina. Uzhhorod, Zakarpats'ke oblasne vyd-vo, 1958. 108 p.
(MIRA 14:1)
(Transcarpathia--Agriculture) (Rewards (Prizes, etc.))

SKOBETS, Ye.M. [Skobets', IE.M.]; IVASHCHENKO, L.M.; POVKHAN, M.F.

Polarography and oscillographic polarography of eriochrome
black T. Dop. AN URSR no.11:1491-1494 '64. (MIRA 18:1)

1. Institut fiziologii rasteniy AN UkrSSR i Ukrainskaya
sel'skokhozyaystvennaya akademiya. Predstavлено академиком
АН UkrSSR Yu.K. Delimarskim [Delimars'kyi, IU.K.].

SKOBETS, Ye.M.; POVKHAN, M.F.

Oscillographic polarography with given sinusoidal voltage on an amalgamated silver electrode. Determination of Cu²⁺, Ti⁴⁺, Cd²⁺, and Zn²⁺. Ukr. khim. zhur. 30 no.8:792-796 '64. (MIR 17:11)

I. Ukrainskaya sel'skokhozyaystvennaya akademiya.

IVANITSKIY, Ye.A.; MIKHALEVICH, V.I.; POVKHOVICH, V.I.

Prospects for developing methods of oil displacement by
mutually soluble liquids. Neft. i gaz. prom. no.2:42-48 Ap-Je
'62. (MIRA 15:6)

1. L'vovskiy sovet narodnogo khozyaystva.
(Oil fields--Production methods)

KRAYUSHKIN, V.A. [Kraiushkin, V.O.]; KAZAKOV, S.B.; POVKHOVICH, V.I.
[Povkhovich, V.I.]

Trace metals in the oils from the Menilite series of the Borislav
undert. rust. Dop. AN URSR no.3:354-358 '65.

1. Institut geologii i geokhimii goryuchikh iskopayemykh AN UkrSSR.
(MIRA 18:3)

BAKLANOV, Viktor Nikolayevich; MEL'NIK, Anisim Petrovich; POVNITSA,
Anatoliy Rodionovich; DIN'KO, F.M., red.; TIMCHISHINA, N.A.,
tekhn. red.

[Heroic deeds of 5000 young construction workers] Podvyh p'iaty
tysiach. [By] V. Baklanov ta inshi Kyiv, Vyd-vo "Molod'," 1961.
106 p. (MIRA 16:2)
(Ukraine--Construction industry)

TEACHING, No.; TEACHING, P.M.; AND PRACTICAL STUDY, I.e.

Dependence of the effectiveness of the methods of teaching
the technology of building upon the state-of-the-art in 1945,
which, trid. VGB, c. 1945.

End

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